

ABSTRACT OF THE DISCLOSURE

An rotary electric machine 1 comprises stator 2 having a stator core 4 wound with stator windings 5 and a rotor 3 having a rotor core 7 rotatable and opposite to the stator core 4 through a gap. The rotor core 4 of the rotary electric machine 1 is composed of a plurality of projecting pole magnetic core portions 73 arranged in a side of the gap and along the circumferential direction and a plurality of rotor yoke portions 76 for forming a magnetic path conducting magnetic fluxes of each of the projecting pole magnetic core portions 73, and the rotor core is divided in the circumferential direction on a unit of each of the projecting pole magnetic core portions 73 and each of the rotor yokes 76 opposite to each of the projecting pole magnetic core portions 73. It is possible to provide a rotary electric machine which is high in material use factor at manufacturing a rotor core and small in size and light in weight, and to provide an electric vehicle using the rotary electric machine.